REMARKS

In response to the Office Action mailed November 17, 2005, Applicants respectfully request reconsideration. To further the prosecution of this application, Applicants have amended the claims and provide the following remarks.

I. Request for Interview

Initially, Applicant's representatives would like to request a telephone interview with the Examiner to be conducted in advance of any further Office Action that may be issued. The Examiner is requested to contact the undersigned to schedule such an interview. Applicants' representatives appreciate the courtesy of the Examiner in this regard.

II. Rejections Under 35 U.S.C. §102 in view of Chen

Claims 1 and 2, including independent claim 1, are rejected as being anticipated by Chen (U.S. Patent No. 5,703,524). Independent claim 1 has been amended to clearly distinguish over Chen.

As amended, claim 1 recites a correlated double sampling pixel gain amplifier circuit comprising an input and an output; an amplifier having an input and an output; an input capacitor onto which input capacitor charge from an input pixel is sampled during a first of first and second time phases, wherein the input capacitor is functionally coupled to the input of the amplifier and to the input of the pixel gain amplifier circuit during the first and second time phases; and a feedback capacitor, coupled between the input and the output of the amplifier, that samples a reference voltage during the first time phase and receives charge from the input capacitor during the second time phase.

In Fig. 11 of Chen, the input capacitor C_S is only coupled to input Vi during ϕ_1 and not during ϕ_2. In fact, the circuit would not operate as intended if this were not the case. Accordingly, Chen does not disclose or suggest an input capacitor functionally coupled to the input of the

amplifier and to the input of the pixel gain amplifier circuit during the first and second time phases, as recited in claim 1.

In view of the foregoing, claim 1 patentably distinguishes over Chen. Accordingly, withdrawal of the rejection of claim 1 is respectfully requested. Claims 2, 4-8, and 17-19 depend from claim 1 and are allowable for at least the same reasons as the independent claim.

III. Rejections Under 35 U.S.C. §102 in view of Domer

Claims 9-12 and 14, including independent claims 9 and 10, are rejected as being anticipated by Domer (U.S. Patent No. 6,346,968). Independent claim 10 has been amended to clearly distinguish over Domer. Claim 9 has been cancelled.

As amended, claim 10 recites a correlated double sampling pixel gain amplifier circuit comprising an input and an output; an amplifier having an input, an output and a gain; and means for varying the gain of the amplifier from a first gain for a first pixel to a second gain for a second pixel, wherein the first and second gains are determined, at least in part, by an input capacitor and a feedback capacitor; wherein the input capacitor is always functionally coupled to the input of the amplifier and to the input of the pixel gain amplifier circuit.

In Fig. 3 of Domer, none of the input capacitors (322, 321, 312, 332, 331, and 313) are functionally coupled to an input of the pixel gain amplifier circuit during the first and second time phases. Rather, capacitors 322, 321, and 312 are only functionally coupled to the pixel voltage V_{PP} when switch 316 is closed and capacitors 332, 331, and 313 are only functionally coupled to the reference voltage V_{PN} when switch 317 is closed, i.e., during T_1 (col. 5, lines 34-40). Indeed, the circuit would not be operable if the input capacitors were functionally coupled to an input of the pixel gain amplifier circuit during the first and second time phases, because the correlated double sampling (CDS) circuit 202 would discharge the capacitors if switches 316 and 317 were closed during T_2 (col. 5, lines 47-50). Accordingly, Domer does not disclose or suggest an input capacitor that is always functionally coupled to the input of the amplifier and to the input of the pixel gain amplifier circuit during the first and second time phases, as recited in claim 10.

In view of the foregoing, claim 10 patentably distinguishes over Domer. Accordingly, withdrawal of the rejection of claim 10 is respectfully requested. Claims 11-12 and 14-16 depend from claim 10 and are patentable for at the same reasons as the independent claim.

IV. Claim Rejections Under 35 U.S.C. §103(a)

Claims 17 and 19 are rejected under 35 U.S.C. §103(a) as being obvious over Chen. Claims 4-7 are rejected under 35 U.S.C. §103(a) as being obvious over Chen in view of Tsay (U.S. Patent No. 6,529,237). Claims 8 and 13 are rejected under 35 U.S.C. §103(a) as being obvious over Chen in view of Panicacci (U.S. Patent App. Pub. No. 2005/0195645). Claim 18 is rejected under 35 U.S.C. §103(a) as being obvious over Chen in view of Domer. Claim 15 is rejected under 35 U.S.C. §103(a) as being obvious over Domer in view of Tsay. Claim 16 is rejected under 35 U.S.C. §103(a) as being obvious over Domer in view of Panicacci.

Claims 4-8, 13, and 17-19 depend from independent claim 1 and are believed to be allowable for at least the same reasons as claim 1. Claims 15 and 16 depend from claim 10 and is believed to be allowable for at least the same reasons as claim 10. Accordingly, for the sake of brevity, Applicants believe that it is unnecessary at this time to argue the allowability of these claims and reserve the right to specifically address the patentability of this claim in the future, if deemed necessary.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,

Date: March 17, 2006 By: Melissa Beede

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